

November - 09

## TNPSC BITS

- ❖ The 360-degree video-immersive experience in circular dome and Digital Exhibits on Mahatma Gandhi installed at Gandhi Darshan, Rajghat, in New Delhi was inaugurated recently.

## INTERNATIONAL

### India-Italy Bilateral Summit

- ❖ PM Modi held a virtual bilateral summit with his Italian counterpart Giuseppe Conte.
- ❖ The leaders are to sign 15 pacts in the field of energy, trade, ship building and culture.
- ❖ The summit is to explore possibilities of Italian investments in India especially in defence.
- ❖ The 2020-24 Action plan was framed during the summit.
- ❖ The four pillars of the action plan were
  - coordination in multilateral forums,
  - political dialogue at bilateral trade,
  - partnership in science and technology and
  - cultural cooperation.

## ECONOMY

### WhatsApp Pay

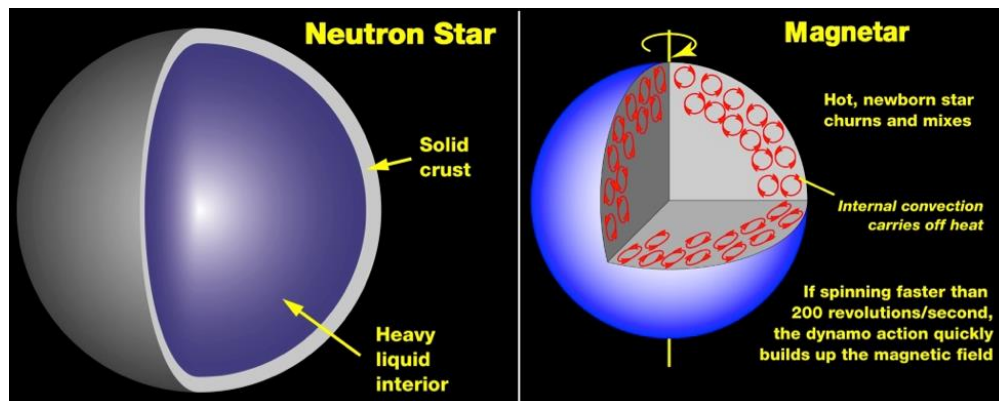
- ❖ The National Payments Corporation of India (NPCI) has allowed Facebook-owned messaging platform WhatsApp to start its payments service in the country in a 'graded' manner.
- ❖ WhatsApp has partnered with five banks namely ICICI Bank, Indian Bank, Axis Bank, HDFC Bank, State Bank of India.
- ❖ Apart from these five banks, Jio Payment Bank has also been included.
- ❖ Unified Payments Interface or UPI is an immediate real-time payment system developed by the National Payments Corporation of India (NPCI).
- ❖ It was introduced in April 2016 as a pilot project.

- ❖ It is regulated by the Reserve Bank of India (RBI).

## SCIENCE AND TECHNOLOGY

### Fast Radio Bursts

- ❖ According to recent observations, Intense pulses of radio waves have now been found in the Milky Way.
- ❖ They are known as fast radio bursts (FRB).
- ❖ They have been frequently detected in other galaxies
- ❖ The latest studies reported that two radio telescopes, one in the United States and the other in Canada detected FRB.
- ❖ It was named FRB 200428.
- ❖ Many theories have also suggested that FRBs are caused by neutron stars.
- ❖ The neutron stars are the corpses of stars which died in explosions called supernovas.
- ❖ Recent study identifies FRBs are in fact generated by a rare type of neutron star known as a 'magnetar'.
- ❖ They came from a magnetar known as SGR 1935+2154, located about 30,000 light-years from the earth.
- ❖ It lies in the centre of the Milky Way, in the constellation Vulpecula.
- ❖ Magnetars are the most powerful magnets in the cosmos.



### All-weather Earth Observation Satellite

- ❖ ISRO launched an all-weather Earth Observation Satellite, EOS-01 using PSLV-C49 rocket.
- ❖ The launched Earth Observation Satellite is a Radar Imaging Satellite.

- ❖ It is the third of the three-spacecraft constellation.
- ❖ The other two are RISAT-2B and RISAT-2BR1.
- ❖ These two satellites were launched in 2019.
- ❖ These three satellites in the constellation are to provide all weather round the clock service with high-resolution images.
- ❖ As the satellite uses radar imaging, it is unaffected by clouds, fog or lack of sunlight.
- ❖ All the three satellites use X-band radars to monitor urban landscape, forest land and imaging agricultural land.



**ISRO PSLV-DL**  
**EOS-01 (RISAT-2BR2)**  
NOVEMBER 7TH 2020 - 4:32 AM EST (09:32 UTC)

**HEIGHT**  
44 m / 144 ft

**DIAMETER**  
2.8 m / 9.1 ft

**VEHICLE VARIANT**  
PSLV-DL

**LAUNCHING FROM**  
Satish Dhawan Space Centre  
First Launch Pad, India

**DESTINATION ORBIT**  
Low Earth Orbit

**PAYLOAD**  
EOS-01 (RISAT-2BR2)

**MISSION**  
Earth Science/Imaging

**MISSION**  
EOS-01 (formerly known as RISAT-2BR2) is an X band, synthetic-aperture radar (SAR) based all weather Earth imaging satellite built by Indian Space Research Organisation (ISRO) for tasks pertaining to forestry, agricultural and disaster management. It is a part of India's RISAT series of SAR imaging spacecrafts and would be third satellite in the series including RISAT-2B, RISAT-2BR1 with 120° phasing.

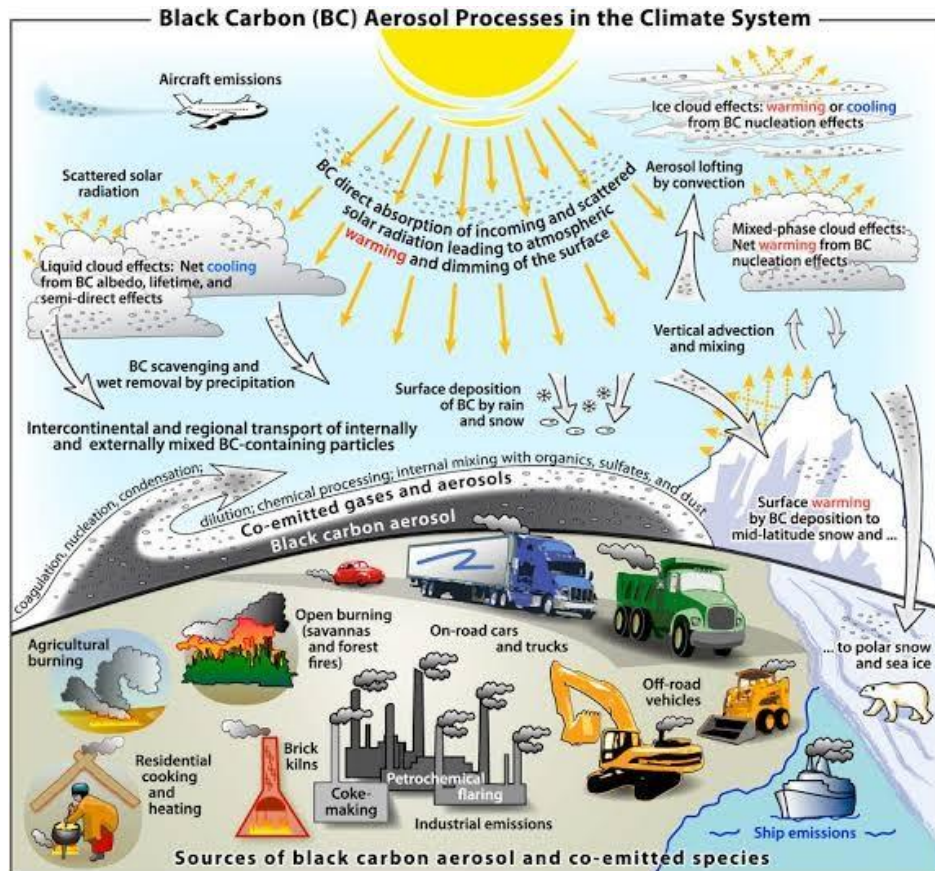
**इसरो ISRO**

## ENVIRONMENT

### Tarballs in Himalayas

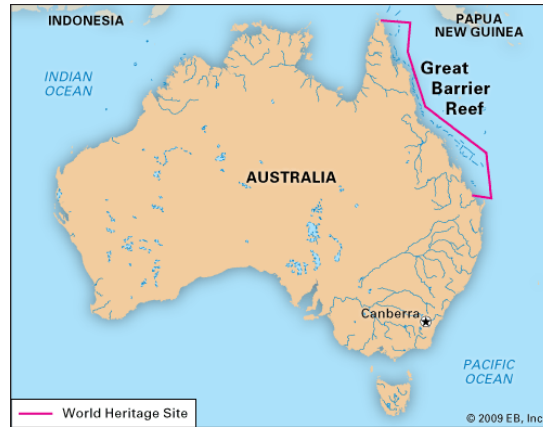
- ❖ A study has found Tarballs found in the Himalaya-Tibetan Plateau.
- ❖ Tarballs are small light-absorbing, carbonaceous particles formed due to burning of biomass or fossil fuels that deposit on snow and ice.
- ❖ They hasten glacial melt.
- ❖ They are formed from brown carbon, emitted during the burning of fossil fuels.

- ❖ Tarballs were emitted from biomass burning in the Indo-Gangetic Plain.



## Great Barrier Reef

- ❖ The scientists from the Schmidt Ocean Institute have discovered a massive detached coral reef in the Great Barrier Reef of Australia.
- ❖ It is the first to be discovered in 120 years.
- ❖ The reef is taller than the Empire State Building of the United States.
- ❖ Detached reefs are the reefs that are bedded to the ocean floor but are not a part of the main body of the Great Barrier Reef.
- ❖ With the newly discovered detached reef, there are totally eight detached reef.



## STATES

### Reservation in Private Sector

- ❖ The Haryana Government passed a bill to provide 75% reservation to local candidates in private-sector jobs.
- ❖ The reservation will be applicable in private companies that pay less than Rs 50,000 per month.
- ❖ The bill, however, contravenes Article 14 and 19 of the Indian Constitution.
- ❖ They provide equality before the law and the right to practice any profession anywhere in India.
- ❖ Hence, it needs the assent of President Ram Nath Kovind before it becomes law.

## PERSONALITIES, AWARDS, AND EVENTS

### Gandhian Young Technological Innovation (GYTI)

- ❖ The Union Ministry of Science & Technology announced Gandhian Young Technological Awards in two categories.
- ❖ SITARE GYTI - Students Innovations for Advancement of Research Explorations - Gandhian Young Technological Innovation (SITARE-GYTI) under Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology (DBT).
- ❖ SRISTI GYTI - Sustainable Technological Innovations-Gandhian Young Technological Innovation (SRISTI-GYTI) given by SRISTI.

## IMPORTANT DAYS

### Infant Protection Day – November 07

- ❖ The day aims to celebrate the day to spread awareness about the safety of infants and protect their lives by taking proper care of infants.
- ❖ Theme of this year: Protecting, promoting, and developing infants.
- ❖ According to the findings of The United Nations' Child Mortality Report in India, 721,000 infant deaths were reported in 2018, which means an average of 1,975 deaths per day.

Top 10 countries with the highest number (thousands) of new born deaths- 2019	Number of newborn deaths (thousands)
India	522
Nigeria	270
Pakistan	248
Ethiopia	99
The Democratic Republic of the Congo	97
China	64
Indonesia	60
Bangladesh	56
Afghanistan	43
United Republic of Tanzania	43

### National Cancer Awareness Day – November 07

- ❖ It aims to spread awareness on cancer, its symptoms and treatment from 2014.
- ❖ According to the WHO, cancer is the second leading cause of death globally.
- ❖ In 2018, approximately 18 million cases were there globally, of which, 1.5 million were in India alone.
- ❖ In 2018, there were around 0.8 million cancer deaths in India against 9.5 million globally.
- ❖ The day coincides with the birth anniversary of Marie Curie.

